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DEMONSTRATION of a New Method of Producing Visual Effects by Means of Sound. *By* DR. E. E. FOURNIER D'ALBE.

A MEMBRANE of thin rubber is stretched horizontally across the end of a tube about 2 in. in diameter, and a drop of mercury, about 1 in. in diameter, is placed upon the membrane. Sound waves entering the tube produce oscillations in the membrane, and these are communicated to the edges of the mercury drop, when they travel to the centre and out again. The incoming and outgoing waves produce stationary ripples in the mercury surface, which remain in position so long as the note is held, and change with every variation in the pitch of the note, the change taking place in about 1/20th of a second, so that a piece of music can be made practically " visible " by means of the pattern of ripples. The wave-length varies inversely as the pitch of the note.

The patterns were thrown on a screen, so that the audience could follow a piece of music played on a gramophone.